

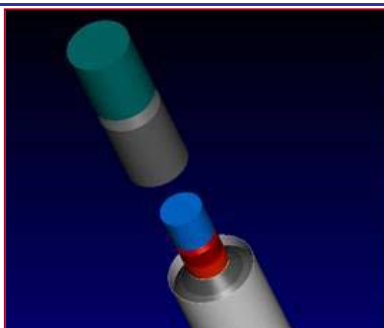
SPORT™ MISSION V-1 – THE MAIDEN FLIGHT

A unique flight opportunity, providing access to low-Earth orbit (LEO) at very low cost, is available on the maiden flight of the Small Payload Orbit Transfer Vehicle (SPORT™).

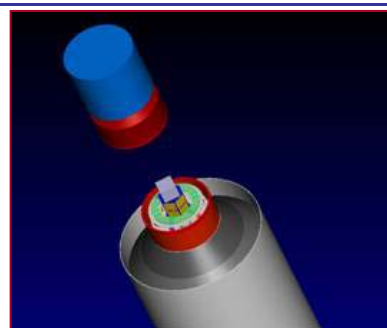
The maiden flight of SPORT offers a unique opportunity to participate in a history making launch and at the same time enjoy very low-cost access to space. Planned for the 3rd quarter of 2003, SPORT V-1 will launch as one of three payloads on an Ariane 5 launch vehicle – the workhorse of the commercial launch market. Once Ariane has achieved a geosynchronous transfer orbit (GTO), each spacecraft will be separated to begin their individual missions, as shown in the sequence below. Once safe separation of SPORT's main payload is assured, the CubeSat's will be ejected.



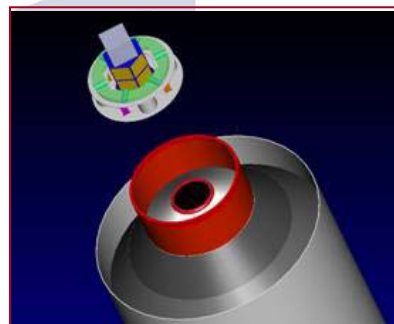
Ariane Fairing Separation



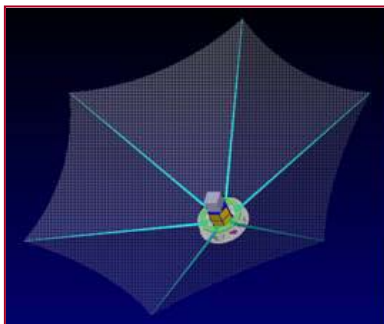
Primary Payload Separation



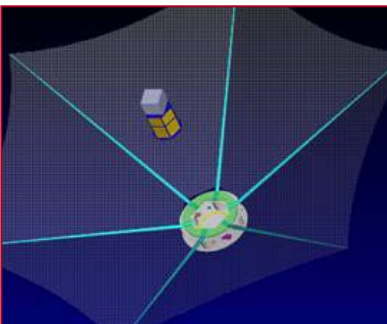
Secondary Payload Separation



SPORT Separation From Ariane



SPORT While Aerobraking



Separation of SPORT's Payload

This maiden flight of SPORT is underwritten by the primary developers of the SPORT™ Vehicle – AeroAstro Inc. and Astronautic Technology (M) Sdn. Bhd. of Malaysia. These pioneering space companies are offering the opportunity for a piggyback payload and “CubeSats” to ride this launch at the marginal cost of accommodating them on the mission. The mass, volume and other services available on this mission are reflected in the table on the reverse page. First-come, first-manifested reservations are being accepted now for this flight. Accommodations are available for six CubeSats. Parties interested should contact AeroAstro at the contact point shown below.

CUBESATS WANTED!

For further information, please contact:

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Space Systems Business Director	
520W Huntmar Park Drive, Herndon VA 20170	
Phone	(703) 421-8555, x-108
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E-mail	bob.meurer@aeroastro.com

Six slots for CubeSats are available on this SPORT mission. AeroAstro will offer CubeSats an exceptionally good price.

AeroAstro – Making Space for EveryoneSM

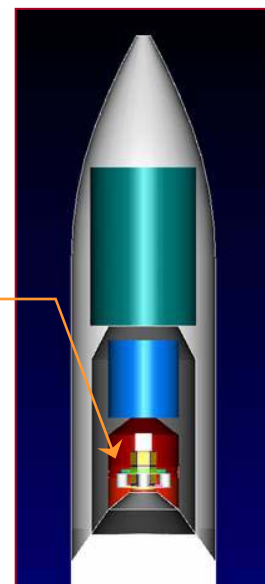
SPORT™ MISSION V1 – THE MAIDEN FLIGHT

The first SPORT vehicle will be lofted to orbit on an Ariane 5 rocket – the world's first choice for access to GTO. Ariane and SPORT – Pairing reliability and innovation.

General Flight Parameters:		
Key Mission Dates	Launch: 3 rd Quarter 2003	Payload Need Date: 1 st Quarter 2003
Primary Launch Vehicle	Ariane 5 secondary payload with centerline adapter (See inset figure below).	
Orbits	Injection: GTO 600 x 35,700 km x 7°	Final: 350 to 1,000 km Circular; <3°
Orbit Transition Time	Minimum: 30 Days (TBR)	Maximum: 60 Days (TBR)
Payload Accommodations		
Mass and Volume	Mass: Spacecraft (NTE) 170 kg	Volume: 1,025 mm H x 2,000 mm Ø
Mechanical Interface:	Separable : Lightband 15" (38.1 cm) (See inset drawing below).	Non-separable: Configurable to meet payload needs.
Electrical Interface:	Two unregulated power lines - 28 Vdc @ 3 Amps (100W orbit average) One bi-directional serial RS-485 line for payload command and telemetry. Five 0-5V analog lines connected to voltage inputs (e.g., connected to a thermocouple in payload).	
Total Dose Radiation	Minimum 5kRad – Maximum 10kRad with 5.0 mm shielding	



Ariane 5 Lifting Off from Guyana Space Center.



Mini-SPORT on Ariane 5.

Volume Available On This Flight

15" Lightband Mechanical Interface

